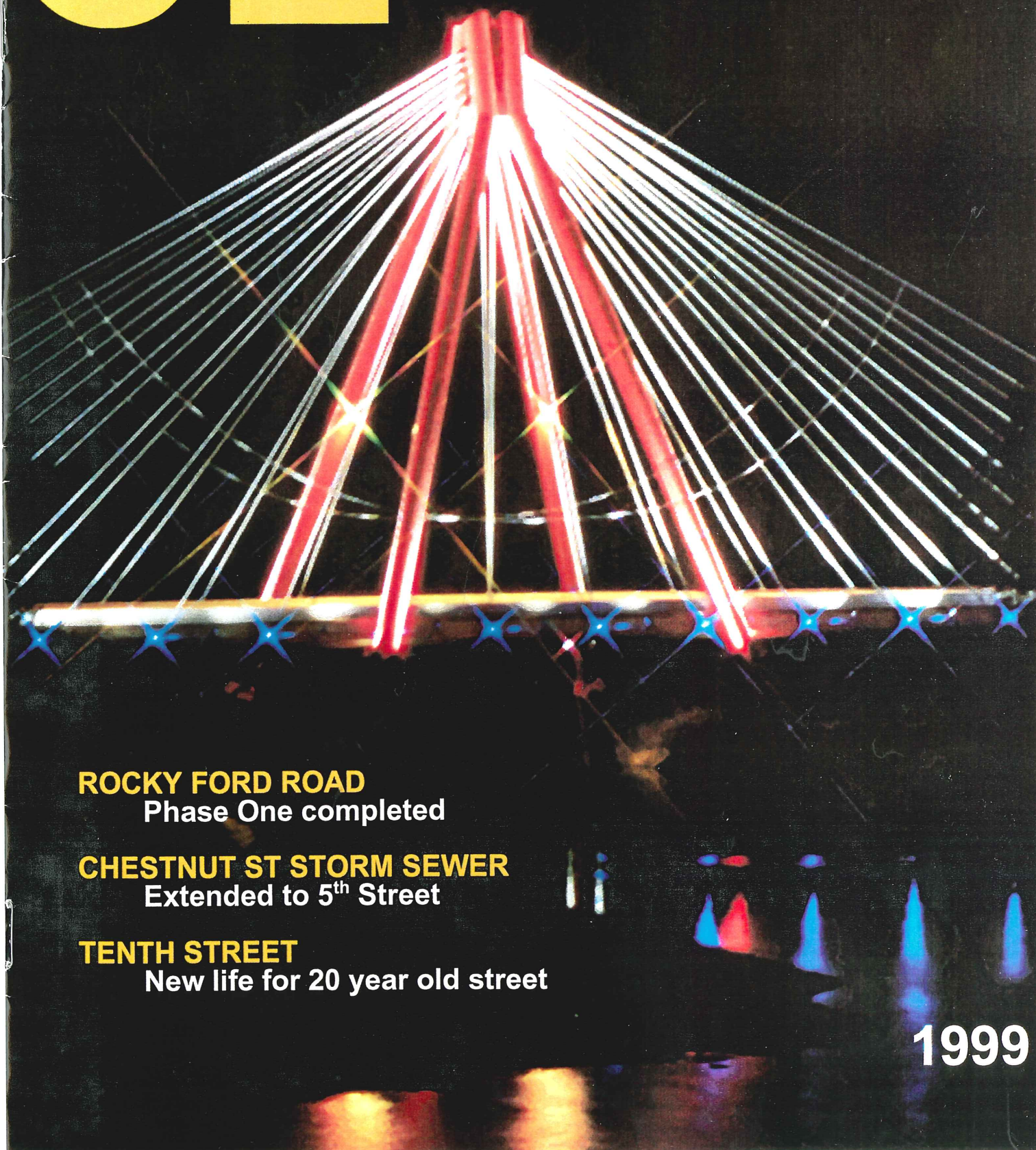


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Annual Report of the City Engineer



ROCKY FORD ROAD
Phase One completed

CHESTNUT ST STORM SEWER
Extended to 5th Street

TENTH STREET
New life for 20 year old street

1999

ROCKY FORD ROAD CONSTRUCTION COMPLETED



Intersection of Rocky Ford Road and Middle Road after reconstruction.



Before reconstruction, note utility work in progress on left side.



Reconstruction in progress.

On June 22, 1999, the Board of Public Works and Safety awarded a contract to Milestone Contractors for the first phase of the Rocky Ford Road Improvement Project. This phase of the project extended from Central Avenue to Candlelight Drive. The final cost of this phase was \$839,952.61.



Milestone crew slip-forming curb and gutter.

The project included widening the street to four lanes, the installation of curbs, the construction of a sidewalk on the north side of the street, and the installation of a drainage system. A new traffic signal was installed at the intersection of Rocky Ford Road and Middle Road as a part of the project. The project also included the asphalt

surfacing of Middle Road which was reconstructed last year. The work was completed in October.

The project was designed by SIECO, Inc. Three parcels of right-of-way were acquired for this phase of the project.

Next year, the City plans to widen the section from Candlelight Drive to Marr Road. This phase will also include the widening of the bridge over Haw Creek by the County. In 2001, the City will begin a multi-phase project on Rocky Ford Road which includes:

- Improvements from Marr Road to Taylor Road
- Extension of Taylor Road
- Improvements to Marr Road

The County will be constructing a new bridge over Haw Creek on Marr Road in conjunction with these improvements.

CITY ENGINEERING STAFF

| | |
|-----------------|-------------------------------|
| David Hayward | City Engineer |
| Steve Rucker | Assistant City Engineer |
| Randy Sims | Senior Engineering Technician |
| Rebecca Douglas | Technician |
| Shawn Plummer | Technician |
| Julie Moisant | Technician |

Cover photo by ACI Photographics, Inc.

THIRTEEN MILES OF STREETS RE-PAVED

OVERLAY PHASE ONE

The City of Columbus opened bids for the repaving of approximately 10.88 miles of streets on June 15, 1999. The low bid of \$408,843.08 was submitted by Milestone Contractors, L.P. A subsequent change order raised the contract total to \$422,484.75.

Milestone also raised manholes, water valves, and detector housings and installed thermoplastic pavement markings as part of the project.



Milestone crew paving in Forest Park.

OVERLAY PHASE TWO

The City opened bids for the second phase of the Overlay Program on August 17, 1999. Milestone submitted the low bid in the amount of \$185,980.95 for the repaving of 2.21 miles of streets.

This year's projects covered 13.1 miles, approximately 6 % of the City's 219.31 miles of streets.



Milling the surface of Tenth Street.



Repaving Tenth Street begins at Central Avenue.

TENTH STREET REPAVED

The major item in the second phase was the milling and repaving of Tenth Street from Central Avenue to National Road. The work rehabilitated the twenty-one year old street to new condition. The street carries more than 20,000 vehicles per day.



Reece Seal Coating crew on Marr Road.

CRACK SEALING & PATCHING PROGRAM

During May and June, Reece Seal Coating, Inc. sealed cracks on twenty city streets. By sealing the cracks, the City can prevent water and salt from penetrating into the pavement causing damage during freeze/thaw cycles, thereby increasing the life of the pavement. The \$37,907.46 project was completed in June.

Several city streets were patched before they were re-paved or patched in small areas. The patching was completed in June by Milestone Contractors L.P. The total cost of the contract was \$47,584.25.

Chestnut Street Storm Sewer Extension Completed

In 1991, the City completed a storm sewer master plan that called for the construction of a new storm sewer trunk line along Chestnut Street. The first phase of that project was completed in 1995. The second phase was completed this year. The second phase included the extension of the 60" storm sewer from 3rd Street to 5th Street. The project will eventually separate the storm water from the sanitary sewer system in the area south of 25th Street between Washington Street and Central Avenue, relieving the sewage treatment plant.



Chestnut Street closed June 8 for storm sewer project.

Milestone Contractors, L.P. was awarded the contract for the project on May 11, 1999. Milestone submitted the lowest bid for the project in the amount of \$268,700. The project was completed in September. The project was designed by SIECO.

The project included the complete removal and reconstruction of the street including the curbs.

EASTRIDGE MANOR STORM SEWER PROJECT COMPLETED

Since Eastridge Manor was annexed in 1990, the City has been working to correct drainage problems that have plagued the area. Drainage improvements through the central area of the subdivision were completed in 1995. In 1999, improvements were completed along the northern edge of the subdivision. The completed project provides improved drainage along Rocky Ford Road. The new storm sewer outfalls into Sloan Branch, a regulated drain.

The Board of Public Works and Safety awarded a contract to Central Indiana Contracting on December 8, 1998. The project, including the installation of 1423 feet of 24" pipe, was completed in March. The project cost \$63,761.

Countryside Underdrains Installed

The City contracted with Kuhn Construction Company for the installation of underdrains in Countryside Addition on April 27, 1999. When the project was completed in June, the underdrains began de-watering the sub-grade below the pavement. The \$45,000 project was completed prior to the streets in the addition being repaved.

STATE STREET, EAST HIGH SCHOOL DRAINAGE STUDIED

The Bartholomew Consolidated School Corporation retained the services of SIECO, Inc. to review the drainage system serving East High School and State Street. The School Corporation initiated the study because of concerns about protecting the gymnasium floors from flood damage. The study concluded that the existing ponds do not adequately drain the area when the water table is elevated. The proposed remedy is to



Storm sewer proposed to keep these ponds from flooding.

install a 30" outlet pipe from the ponds to Clifty Creek. The proposed improvements would be beneficial to the residents of Wehmeier Addition as well as East High School. SIECO, Inc. is seeking permits for the project. Construction of the project is scheduled for 2000.

Sandy Hook Drainage Studied

The City, in cooperation with the Sandy Hook Lot Owners Association, contracted with SIECO, Inc. to study the drainage system in the area, including the lake. The only outlet for the lake is through a pump which is owned and operated by the association. At times, the pump has been incapable of moving enough water to prevent the lake from rising and damaging the lower levels of several homes. Several solutions are being considered including installing a larger pump, installing an additional pump, and constructing a gravity outlet. However, the gravity outlet does not appear to be a feasible. Construction of the selected solution could take place in 2000.

Drainage Repair Projects

The city awarded contracts totaling \$173,994.65 for miscellaneous drainage repairs and improvements in 1999. This work was awarded through the quote process to local contractors. The 1999 drainage projects included:

| | |
|-----------------------|-----------|
| Storm Sewer Pipe, New | 609' |
| Repaired Pipes | 60' |
| Inlets, New | 11 |
| Inlets, Repaired | 21 |
| Dry Wells, New | 10 |
| Dry Wells, Repaired | 1 |
| Curb, New | 230' |
| Curb, Repaired | 547' |
| Pavement Repairs | 2,076 sft |
| Underdrains, New | 3,482' |
| Curb Ramps, New | 1 |
| Sidewalk, Repaired | 1535 sft |

Some of the more significant projects were the installation of underdrains in Countryside Addition and the reconstruction of a ditch east of Terrace Lake Road.



Crew installing underdrains on Goeller Boulevard.

Facts and Figures

| | |
|-------------------------------------|------------|
| Miles of streets in Columbus | 230.5 |
| Miles of asphalt streets | 220.4 |
| Miles of concrete streets | 9.5 |
| New miles of streets this year | 11.2 |
| Number of traffic signals | 34 |
| New traffic signals this year | 18 |
| Number of street cut permits 1999 | 394 |
| Number of street closings 1999 | 327 |
| Number of slats in a city hall door | 53 |
| Area of the City | 26 sq. mi. |

Wayfinding Project

Final plans are now being completed for directional signs on some of the City's major streets. The signs are a part of a wayfinding project, which has been planned since 1995. The signs will help guide visitors to schools, parks, the Visitors Center, and other destinations. New maps will be coordinated with the sign system.

The sign system is being designed by Corbin Design of Traverse City, Michigan through a contract with the Chamber of Commerce Foundation. The project is funded by the Cummins Engine Foundation, Columbus Area Chamber of Commerce, Visitors Center, City of Columbus, and several local companies.

Implementation of the wayfinding project is expected to begin early next year.



CASE Construction replaces pavement at Tipton Lakes.

CONCRETE STREETS REPAIRED

In October, the City awarded three contracts for concrete street repairs. CASE Construction was awarded a \$14,000 contract for repairs to several intersection areas in Tipton Lakes. Milestone was awarded a \$13,345 contract for the repairs in Everroad Park West and a \$12,925 contract for repairs in Riverview Acres. All three of the contracts were completed in November.

RAILROAD CROSSINGS REMOVED

CASE Construction was hired by the City in October for the removal of the inactive railroad crossings on Jackson Street, Lafayette Street, and Sycamore Street. The \$10,000 project was completed November 12.

FORECAST 2000

The City Engineer's Office is already busy planning and preparing projects for the next construction season. Plans are ready and rights-of-way secured for the next phase of the Rocky Ford Road project. The next phase will include the section between Candlelight Drive and Marr Road, which includes the widening of the Haw Creek bridge by the County (see page 2).

The City and County have also been working together to finalize plans and acquire the right-of-way for the replacement of the Seventh Street bridge over Haw Creek. Construction of the new bridge should begin next summer.

The major drainage project next year is expected to be the extension of a storm sewer pipe from the State Street ponds to Clifty Creek to alleviate drainage problems around East High School and Wehmeier Addition (see page 5). Also under consideration is a project to improve drainage in the Sandy Hook area (see page 5).

The Indiana Department of Transportation is planning to open bids in the spring for improvements to State Road 46 from State Road 11 to Interstate 65 (see page 8). The state is also completing plans for the rehabilitation of the 3rd Street bridge (see page 8).

Wayfinding signs are expected to be installed by city crews beginning next spring (see page 6). The new signs will help guide visitors to schools, parks, the Visitors Center, and other popular destinations.

Now that the City has adopted the goals and policies for its new comprehensive plan, the new Thoroughfare Plan is being reviewed for presentation to the Plan Commission early in 2000.

New lighting on Brown and Lindsey is expected to be installed next spring. The City is working with Cinergy to develop a plan to replace the 30 year old system between 3rd and 11th Streets.

The City and County have been working together to develop a new drainage and erosion control ordinance. Ideally, both will adopt parallel ordinances, which should be beneficial to users.

WalkWorks 99

The City's sidewalk replacement program, *WalkWorks*, was established in 1991 to encourage property owners to replace unsafe, deteriorated sidewalks and to build new sidewalks. The program, now in its ninth year, has replaced more than seven miles of sidewalks. This year, the program was changed to allow the property owner more flexibility to determine how and when the work was completed. The City reimbursed property owners \$10 per foot of sidewalk after it was replaced and inspected.

WalkWorks 99 replaced 2030 linear feet of sidewalk across 31 residential lots. The total cost of the program was \$25,112.46. Also included in *WalkWorks 99* was the installation of 10 new curb ramps in conformance with the Americans with Disabilities Act. As a part of the program, three alley approaches were also replaced.



CASE Construction installs curb ramps on 1st Street.

Curb Ramps Installed

The City installed 41 curb ramps along streets that were overlaid this year as required by the Americans with Disabilities Act. The ramps were built by CASE Construction, Inc. at a cost of \$14,822.

State Road 46 Resurfaced, Re-routed

In August, 1998 the Indiana Department of Transportation contracted with Dave O'Mara Contracting for the resurfacing of State Road 46 (25th Street, Washington Street) through Columbus. The project was completed in early June and State Road 46 was re-routed on June 28.

Road 400N Opened by County

After being closed since 1984 due to bridge deficiencies, Road 400N is now open. The county completed the bridge rehabilitation on June 14 and opened the road between River Road and U.S. 31.

New Traffic Signals

The Board of Public Works and Safety opened bids in August, 1998 for a new traffic signal along 450S at Old Lane, the primary entrance into the Woodside Industrial Park. Signal Construction, Inc. submitted the low bid of \$65,354. The signal was designed by Kloeker Engineering of Seymour. The signal installation was completed in January. The signal was installed in response to rising traffic volumes and increasing accident frequency.

The Board of Public Works and Safety contracted with Kloeker Engineering in 1998 to design a new traffic signal for the intersection of 27th Street and Central Avenue. Firefighters will be able to pre-empt the signal when leaving or returning to Fire Station No. 4. The Board awarded a contract to Signal Construction, Inc. on July 20. The \$62,126.13 project is expected to be completed by the end of 1999.

Pavement Management System

The City Engineer's Office made significant strides this year toward the implementation of a pavement management system. When completed and fully operational, the system will provide complete information on each segment of street in the city and will be capable of sorting the information by numerous parameters.

New Subdivision Streets Accepted

The construction of new subdivisions and new homes continued at a fast pace in 1999. Twenty-nine new streets were accepted by the City in six subdivisions. A total of 12,998 feet (2.46 miles) were added to the city's street inventory.

The subdivisions where streets were accepted by the city are Grant Park, Madison Park, Washington Park, Skyview Estates, Westlake Park Section 3, Technology Park, and Carr Hill Road extension. The streets in phase one of Carter Crossing are also expected to be accepted before the end of the year.

In addition, 8.70 miles of State Road 46 and State Road 11 were accepted by the City this year.

New Second Street Bridge Opens May 10



Milestone Contractors completed the new Second Street bridge and opened it to traffic on May 10, but it was the "bridge party" on Saturday, May 8 that people will remember. The City, Milestone, and the Front Door Committee decided to let the public walk across the bridge before they could drive across. They were greeted by several thousand people who were anxious to experience the bridge in a way that may never be possible again, without vehicular traffic.

Following the bridge opening in May, workers shifted their attention to other sections of roadways leading to and from the bridge. The \$10.4 million project was completed in August.

The new bridge carries eastbound traffic into the downtown area, more than 15,000 vehicles per day. The bridge was designed by J. Muller International.

The Indiana Department of Transportation is planning to rehabilitate the existing Third Street bridge in 2000. The bridge, which now carries westbound traffic, will remain open during the rehabilitation. Work will be restricted to two lanes, so two lanes will be open for traffic.



Federal Highway Administrator Kenneth Wykle (left) and Secretary of Transportation Rodney Slater (right) present award to Armstrong and Hayward.

INTERCHANGE PROJECT RECEIVES AWARDS

The City, Milestone Contractors, J. Muller International, and the Indiana Department of Transportation continue to receive awards for the interchange project. On April 7, they received the Federal Highway Administration's biennial "Excellence in Highway

Design Competition" award. The following is a complete list of the awards which have been received to date:

- ▶ Federal Highway Administration "Excellence Award", Major Structures over \$10 million, 1997-98 biennium.
- ▶ Indiana Ready Mixed Concrete Association "Outstanding Achievement Award"
- ▶ Indiana Society of Professional Engineers "Outstanding Engineering Achievement Award"
- ▶ Structural Engineers Association of Illinois "Most Innovative Structure Award"
- ▶ National Steel Bridge Alliance / American Institute of Steel Construction "Merit Award - Medium Span Category"
- ▶ Consulting Engineers Council of Illinois "Engineering Excellence Honor Award"

Improvements to SR 46 Expected

The last parcels of right-of-way are now being acquired for the final phase of the Front Door Project and construction is expected to begin next spring. On June 11, newly appointed INDOT Commissioner visited Columbus to announce that an agreement had been reached for the state to fund the final phase of the project. This phase includes the reconstruction of the deteriorated pavement, installation of lighting and landscaping, construction of sidewalks in the commercial area, and paving a People Trail on the north side of State Road 46 from State Road 11 to the interchange.



INDOT Commissioner Christine Klika and Mayor Armstrong announce funding agreement.

National Road Project Design Begins

In October, the City was notified that First Group Engineering, Inc. had signed a contract with the Indiana Department of Transportation for the design of improvements to National Road (US 31) from the Flatrock River to Road 50N. By early November, surveyors were working in the area.